

APPENDIX B: CLEAN COPY OF PENDING CLAIMS (UNOFFICIAL)

1. A nucleic acid with a 5' end and a 3' end comprising a first functional nucleotide sequence and a scissile strand topoisomerase I cleavage motif sequence selected from the group consisting of CCCTT and TCCTT, wherein the scissile strand topoisomerase I cleavage motif sequence is located 3' to the first functional nucleotide sequence and provides a scissile strand topoisomerase I cleavage site that is not more than 10 bases from the 3' end of the nucleic acid, wherein the first functional nucleotide sequence is selected from the group consisting of a prokaryotic promoter sequence, a eukaryotic promoter sequence, a viral promoter sequence, a polypeptide tag encoding sequence, a terminator sequence, a fusible protein encoding sequence and an intronic sequence.
2. The nucleic acid of claim 1, wherein the scissile strand topoisomerase I cleavage motif sequence is TCCTT.
4. An adaptor comprising a first nucleic acid with a 5' end and a 3' end comprising a scissile strand topoisomerase I cleavage motif having a 5' motif sequence contiguous with a 3' motif terminal T, said 5' motif sequence being selected from the group consisting of CCCT and TCCT and providing a scissile strand topoisomerase I cleavage site that is not more than 10 bases from the 3' end of the first nucleic acid, said 3' motif terminal T being contiguous with a palindromic sequence of not less than two nucleotides nor more than 10 nucleotides and said palindromic sequence being contiguous with a 3' end A.
5. The adaptor of claim 4, further comprising a second nucleic acid having a 5' end sequence that is complementary to the 5' sequence of the scissile strand topoisomerase I cleavage motif.
6. The adaptor of claim 4, wherein the 5' motif sequence of the scissile strand topoisomerase cleavage motif is TCCT.
7. The adaptor of claim 4, further comprising a restriction endonuclease site located 5' to the scissile strand topoisomerase I cleavage motif.

8. The adaptor of claim 4, further comprising a 5' end sequence that is complementary to the 5'-overhang of a restriction endonuclease site.
9. The adaptor of claim 7 or claim 8, wherein the restriction endonuclease is selected from the group consisting of BamH I, Bgl II, Cla I, Dde I, Eae I, Eag I, EcoR I, Hind III, Kas I, Mbo I, Mlu I, Nco I, Nde I, Nhe I, Not I, PaeR7 I, Sal I, Sau3A, SpeI, Sty I, Xba I, Xha I, Xho I and Xma I.
10. The adaptor of claim 4, further comprising a first functional nucleotide sequence selected from the group consisting of a prokaryotic promoter sequence, a eukaryotic promoter sequence, a viral promoter sequence, a mutational sequence, a polypeptide tag encoding sequence, a nucleic acid tag sequence, a terminator sequence, a fusible protein encoding sequence, a radioactively labeled nucleotide sequence, a chemically labeled nucleotide sequence and an intronic sequence.
21. The nucleic acid of claim 1, wherein the scissile strand topoisomerase I cleavage motif sequence is CCCTT.
22. The adaptor of claim 4, wherein the 5' motif sequence of the scissile strand topoisomerase cleavage motif is CCCT.